

Exhibit 2

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**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION**

COREPHOTONICS, LTD.

Plaintiff,

vs.

APPLE INC.

Defendant.

Case No. 3:17-cv-06457-JD (Lead Case)
Case No. 3:18-cv-02555-JD

**PLAINTIFF COREPHOTONICS, LTD.'S
SECOND AMENDED DISCLOSURE OF
ASSERTED CLAIMS AND
INFRINGEMENT CONTENTIONS**

Pursuant to Patent Local Rule 3-1 and 3-6 and to the parties' proposed case schedules (Dkt. 128), Plaintiff Corephotonics, Ltd. ("Corephotonics") submits this Amended Disclosure of Asserted Claims and Infringement Contentions.

This amended disclosure addresses additional products introduced by Apple subsequent to Corephotonics' ~~original~~first amended infringement contentions served last year in ~~2018~~July 2022 and ~~addresses changes to~~merely adds the ~~claims of the '712 patent following the Inter Partes Review and Ex Parte Reexamination proceedings brought by~~iPhone 14 models that Apple ~~released thereafter under the same infringement theories.~~ Corephotonics incorporates by reference its Amended Disclosure of Asserted Claims and Infringement Contentions served on July 26, 2022 in Case No. 3:17-cv-06457 and its Disclosure of Asserted Claims and Infringement Contentions in Case No. 17-cv-06457 served on April 11, 2018 and its Disclosure of Asserted Claims and Infringement Contentions in Case No. 18-cv-02555 served on May 30, 2018. Corephotonics expressly reserves all objections relative to the use of its Disclosures of Asserted Claims and Infringement Contentions, for any purpose, and does not waive any applicable privileges with respect to the information disclosed herein or document productions made pursuant to Patent Local Rules 3-1 and 3-2.

In Corephotonics' infringement contentions served on April 11, 2018, Corephotonics asserted claims 1, 2, 3, and 4 of U.S. Patent No. 9,538,152 (the "'152 patent"). These claims of the '152 patent were found unpatentable by the Patent Trial and Appeal Board in a final written decision issued December 2, 2019 in IPR2018-01133. Corephotonics' appeal of this final written decision is still pending at the Federal Circuit (Case No. 20-1425). To the extent it is necessary to do so in order to preserve Corephotonics' ability to assert the '152 patent in the event that the final written decision is reversed, Corephotonics incorporates by reference its infringement contentions in Case No. 17-cv-06457 served on April 11, 2018, as they relate to the '152 patent into each relevant section below. Corephotonics reserves the right to seek leave for additional amendments to its contentions for the '152 patent should the final written decision in IPR2018-01133 be reversed.

This disclosure is based on the information available to Corephotonics at this time. The stay in these consolidated cases was ~~only recently~~ lifted, on April 14, 2022 (Dkt. 127), and discovery has only just restarted and is ongoing, fact discovery does not end until November 17, 2023 (Dkt. 175), the Defendant in this case has yet to produce any documents related to its products introduced subsequent to the ~~original~~amended infringement contentions, and Corephotonics' investigation is ongoing. Corephotonics reserves the right to supplement or amend these disclosures, its contentions in this case, and its document production pursuant to these disclosures including to the full extent consistent with the Federal Rules of Civil Procedure, Local Rules, and Court Orders.

I. DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS (P.L.R. 3-1)

A. Asserted Claims

Based on information reasonably available to Corephotonics at this time, Corephotonics asserts that Defendant Apple Inc. ("Apple" or "Defendant") infringes the following claims pursuant to 35 U.S.C. §§ 271(a) and 271(b) (collectively the "Asserted Claims"):

Claims 1, 12, 13, and 19 of U.S. Patent No. 9,568,712 (the "'712 patent"); and

Claims 1, 2, 3, 4, 5, 6, 7, 10, 12, and 13 of U.S. Patent No. 9,185,291 (the "'291 patent").

B. Identification of Accused Instrumentalities

Based on information reasonably available to Corephotonics at this time. The following is, for each of the Asserted Claims, an identification of each accused apparatus, product, device, process, method, act, or other instrumentality.

Claim 19 of the '712 patent is infringed by the iPhone 7 Plus and iPhone 8 Plus and/or the use of these models.

Claims 1, 12, and 13 of the '712 patent are infringed by the iPhone X, iPhone XS, iPhone XS Max, iPhone 11 Pro, iPhone 11 Pro Max, and iPhone 12 Pro, and/or the use of these models.

Claims 1, 2, 3, 4, 5, 6, 7, 10, 12, and 13 of the '291 patent are infringed by the iPhone 7 Plus and/or the use of this model.

Claims 1, 2, 3, 4, 5, 10, 12, and 13 of the '291 patent are infringed by the iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max, iPhone 12 mini, iPhone 12, iPhone 12 Pro, iPhone 12 Pro Max, iPhone 13, iPhone 13 mini, iPhone 13 Pro, and iPhone 13 Pro Max, iPhone 14, iPhone 14 Plus, iPhone 14 Pro, and iPhone 14 Pro Max, and/or the use of these models.

Claims 1, 2, 3, 4, 10, 12, and 13 of the '291 patent are infringed by the iPad Pro 11-inch (2nd generation), iPad Pro 11-inch (3rd generation), iPad Pro 12.9-inch (4th generation), and iPad Pro 12.9-inch (5th generation), and/or the use of these models.

Specific Accused Instrumentalities that infringe each of the Asserted Claims are further specified in Exhibits A, D, F, G, K, and L.¹ Corephotonics in no way intends that the Accused Instrumentalities are limited to the methods and apparatuses that are identified in Exhibits A, D, F, G, K, and L. The Accused Instrumentalities specifically include all systems, apparatuses, services, and methods of Defendant similar to those identified in these exhibit that include the claimed elements.

C. Direct Infringement

A chart that identifies specifically where and how each limitation of claims 1, 2, 3, 4, 5, 6, 7, 10, 12, and 13 of the '291 patent is found within the iPhone 7 Plus is attached hereto as Exhibit A. This exhibit is unmodified from the Exhibit A Corephotonics served in its April 11, 2018 infringement contentions.

Charts that identify specifically where and how each limitation of claim 19 of the '712 patent is found within the iPhone 7 Plus and iPhone 8 Plus are attached hereto as Exhibits D and F. These exhibits are unmodified from the Exhibits D and F Corephotonics served in its April 11, 2018 infringement contentions.

A chart that identifies specifically where and how each limitation of claims 1, 12, and 13 of the '712 patent is found within the iPhone X, iPhone XS, and iPhone XS Max is attached hereto as Amended Exhibit G. This exhibit is an amended version of the Exhibit G Corephotonics served in its May 30, 2018 infringement contentions.

¹ All references to Exhibit L refer to amended Exhibit L.

A single chart is provided for the iPhone X, iPhone XS, and iPhone XS Max because each contains substantially the same accused lens assembly. For example, Apple describes the rear “telephoto” lens assembly in each model as a “6-element lens” with F# of $f/2.4$ and used with a 12 megapixel sensor:

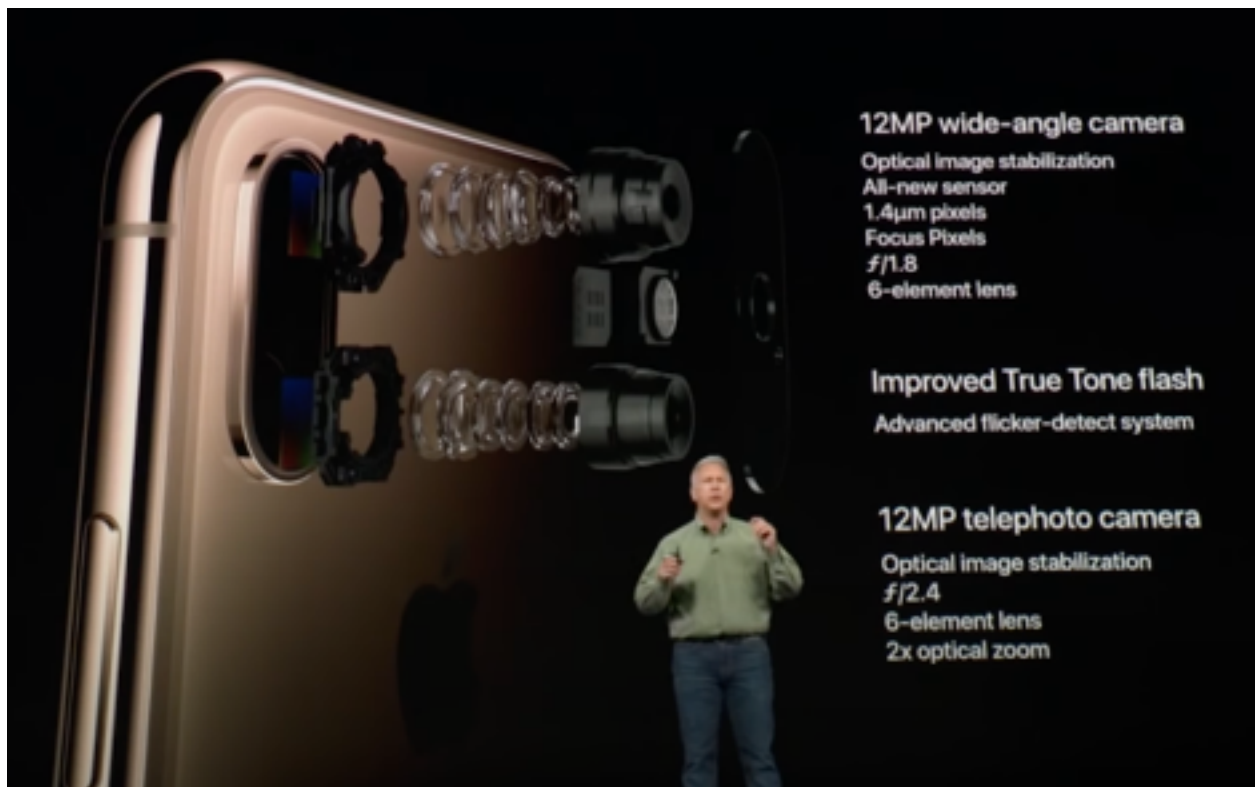
Camera

- 12MP wide-angle and telephoto cameras
- Wide-angle: $f/1.8$ aperture
- Telephoto: $f/2.4$ aperture
- Optical zoom; digital zoom up to 10x
- Portrait mode
- Portrait Lighting (beta)
- Dual optical image stabilization
- Six-element lens

(“iPhone X – Technical Specifications,” https://support.apple.com/kb/sp770?locale=en_US)



(“Apple iPhone X – Full Announcement,” <https://www.youtube.com/watch?v=Umy1GN3rIJQ> at 22:15)



(“Apple iPhone XS – Full Announcement,” <https://www.youtube.com/watch?v=QcfO6cIyjKgat> 12:50)

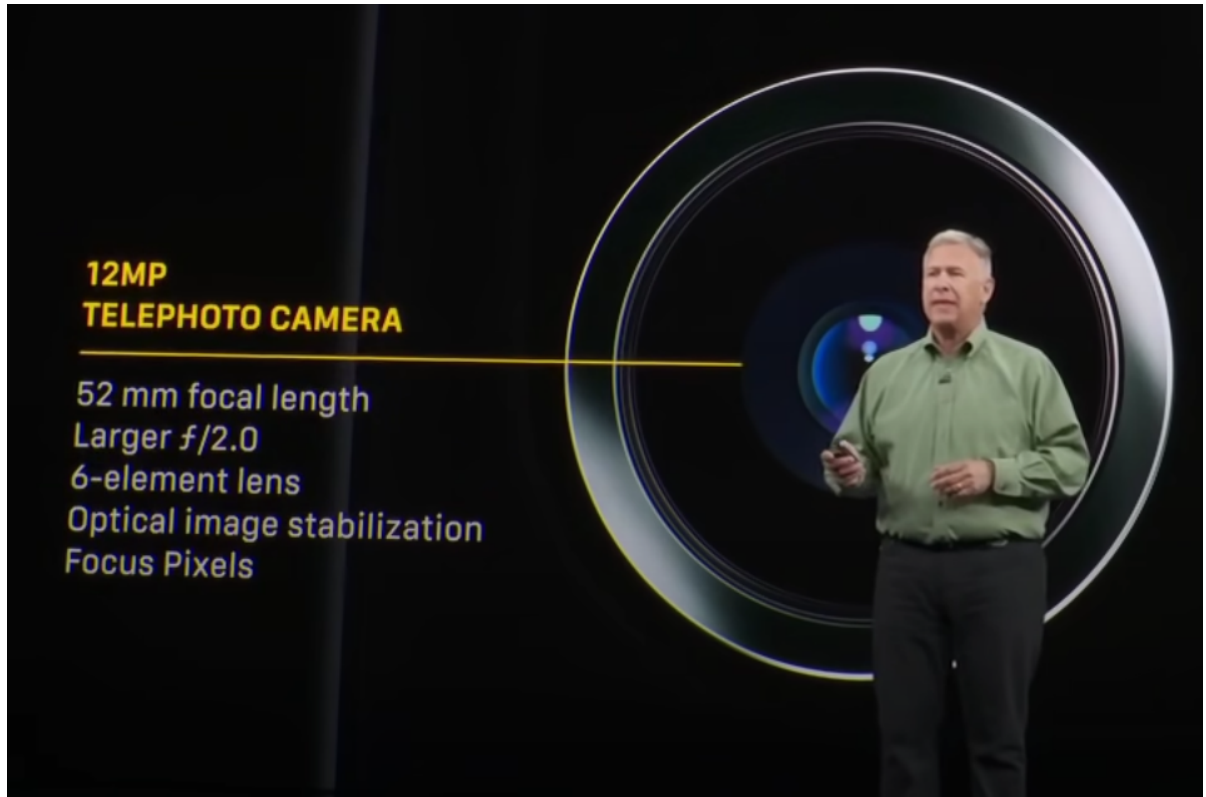
Moreover the “telephoto” lens assemblies in the iPhone X, XS, and XS Max products have the same focal length. Each has substantially the same sized 1/3.4” image sensor, with 4032 x 3024 pixels and a 1-micron pixel pitch (see https://www.gsmarena.com/apple_iphone_x-review-1681p8.php, https://www.phonearena.com/phones/Apple-iPhone-XS_id10766, <https://www.dxomark.com/apple-iphone-xs-max-review-flagship-imaging-power/>), and each product reports an equivalent focal length of 51mm:

	IPHONE X	IPHONE XS
	REAR FACING CAMERA: WIDE ANGLE	REAR FACING CAMERA: WIDE ANGLE
Minimum/Maximum exposure	1/91000s minimum, 1/5s maximum	1/22000s minimum, 1s maximum
Minimum/Maximum ISO	22 ISO minimum, 2112 ISO maximum	24 ISO minimum, 2304 ISO maximum
Image output size	4032 × 3024 pixels	4032 × 3024 pixels
Focal length	28mm equivalent	26mm equivalent
Autofocus systems	Phase, Contrast	Phase, Contrast
Flash	Truetone multi-LED flash	Truetone multi-LED flash
Aperture	f/1.8	f/1.8
	REAR FACING CAMERA: TELEPHOTO	REAR FACING CAMERA: TELEPHOTO
Minimum/Maximum exposure	1/91000 minimum, 1/5s maximum	1/45000 minimum, 1/5s maximum
Minimum/Maximum ISO	15 ISO minimum, 1200 ISO maximum	15 ISO minimum, 1440 ISO maximum
Image output size	4032 × 3024 pixels	4032 × 3024 pixels
Focal length	51mm equivalent	51mm equivalent
Autofocus systems	Phase, Contrast	Phase, Contrast
Flash	Truetone multi-LED flash	Truetone multi-LED flash
Aperture	f/2.4	f/2.4

(<https://lux.camera/iphone-xs-vs-iphone-x-the-camera-hardware-changes/>). Cameras with the same sensor size and same equivalent focal length will have the same actual focal length. It is reasonable to infer from the fact that the iPhone XS and XS Max, which are marketed as an incremental update to the iPhone X product, contain a telephoto lens assembly with the same number of lens elements, same focal length, and same aperture, serving the same function and used with a substantially similar camera sensor, that the iPhone X, XS, XS Max each infringe claims 1, 12, and 13 of the '712 patent in the same way.

A chart that identifies specifically where and how each limitation of claims 1, 12, and 13 of the '712 patent is found within the iPhone 11 Pro, iPhone 11 Pro Max, and iPhone 12 Pro is attached hereto as Exhibit K.

A single chart is likewise provided for the iPhone 11 Pro, iPhone 11 Pro Max, and iPhone 12 Pro because each contains substantially the same accused lens assembly. For example, Apple describes the rear “telephoto” lens assembly in each model as a “6-element lens” with F# of $f/2.0$, 52 mm equivalent focal length, and used with a 12 megapixel sensor:



(“September Event 2019 – Apple,” <https://www.youtube.com/watch?v=-rAeqN-Q7x4> at 1:17:00)



(“Apple Event – October 13 [2020],” <https://www.youtube.com/watch?v=KR0g-1hnQPA> at 50:00)

Moreover the “telephoto” lens assemblies in the iPhone 11 Pro, iPhone 11 Pro Max, and iPhone 12 Pro products have the same focal length. Each has substantially the same sized 1/3.4” image sensor, with 12 megapixels and a 1-micron pixel pitch (*see* <https://www.dxomark.com/updated-apple-iphone-11-pro-max-camera-review-still-an-excellent-imaging-option/>, <https://www.dxomark.com/apple-iphone-12-pro-camera-review-great-smartphone-video/>), and each product is described as having an equivalent focal length of 52mm.

Cameras with the same sensor size and same equivalent focal length will have the same actual focal length. It is reasonable to infer from the fact that the iPhone 12 Pro, which is the immediate successor product to the iPhone 11 Pro, contains a telephoto lens assembly with the same number of lens elements, same focal length, and same aperture, serving the same function and used with a substantially similar camera sensor, that the iPhone 11 Pro, 11 Pro Max, and 12 Pro each infringe claims 1, 12, and 13 of the ’712 patent in the same way.

A chart that identifies specifically where and how each limitation of claims 1, 2, 3, 4, 5, 10, 12, and 13 of the ’291 patent is found within the iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max, iPhone 12 mini, iPhone 12, iPhone 12 Pro, iPhone 12 Pro Max, iPhone 13, iPhone 13 mini, iPhone 13 Pro, iPhone 13 Pro Max, [iPhone 14](#), [iPhone 14 Plus](#), [iPhone 14 Pro](#), [iPhone 14 ProMax](#) (the

“iPhone Accused Ultra Wide / Wide Products”), and where and how each limitation of claims 1, 2, 3, 4, 10, 12, and 13 of the ’291 patent is found within the iPad Pro 11-inch (2nd generation), iPad Pro 11-inch (3rd generation), iPad Pro 12.9-inch (4th generation), and iPad Pro 12.9-inch (5th generation) (the “iPad Accused Ultra Wide / Wide Products” together with the iPhone products the “Accused Ultra Wide / Wide Products”) is attached hereto as Exhibit L.

A single chart is provided for the iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max, iPhone 12 mini, iPhone 12, iPhone 12 Pro, iPhone 12 Pro Max, iPhone 13, iPhone 13 mini, iPhone 13 Pro, iPhone 13 Pro Max, iPhone 14, iPhone 14 Plus, iPhone 14 Pro, iPhone 14 ProMax, iPad Pro 11-inch (2nd generation), iPad Pro 11-inch (3rd generation), iPad Pro 12.9-inch (4th generation), and iPad Pro 12.9-inch (5th generation) because each infringes the ’291 patent in substantially the same way. Each contains a rear camera module including what Apple designates an “ultra wide” camera and a “wide” or “main” camera. Each utilizes the same or substantially similar iOS (or its rebranded variant iPadOS) software to operate these cameras in the manner that infringes the ’291 patent. With the exception of claim 5, the differences among the hardware of the various Accused Ultra Wide / Wide Products do not significantly affect how they infringe the ’291 patent.

D. Indirect Infringement

The following are descriptions of Apple’s inducement of infringement of the Asserted Claims by others pursuant to Patent L.R. 3-1(d). These descriptions are based on the information reasonably available to Corephotonics at this time. Discovery is ongoing, Corephotonics investigation continues, and Corephotonics reserves the right to amend or supplement its contentions of indirect infringement.

Induced Infringement of the Asserted Claims of the ’291 patent

Apple manufactures, uses, imports, offers for sale, and/or sells the Accused Products with knowledge of or willful blindness to the fact that its actions will induce Apple’s customers and end users to infringe the ’291 patent by using the dual-aperture and/or triple-aperture camera on the Accused Products.

Apple actively and knowingly induces its customers and end users to infringe the ’291 patent by publishing information promoting the dual-aperture camera of the Accused Products,

and by providing its customers and end users with instructions for using that camera. For example, Apple highlighted the benefits of the dual-aperture camera when it introduced the iPhone 7 Plus. *See, e.g.,*

- “Apple – September Event 2016,” https://www.youtube.com/watch?v=NS0txu_Kzl8 at 1:08:22, and
- “Apple – Introducing iPhone 7,” <https://www.youtube.com/watch?v=Q6dsRpVyyWs> at 1:05.

Apple further encourages the use of the continuous zoom feature for a dual-aperture camera pertaining to the Asserted Claims of the ’291 patent by customers and developers of software that use the dual-aperture camera of the iPhone 7 Plus its employees providing descriptions of these features in online forums and at public presentations, *see, e.g.,* as disclosed in Exhibit A.

Apple has continued to provide such instructions and encouragement in subsequent products, including the Accused Ultra Wide / Wide Products. *See, e.g.,*

- “September Event 2019 – Apple,” <https://www.youtube.com/watch?v=-rAeqN-Q7x4> at 50:52.
- “Introducing iPhone 14 Pro | Apple,” <https://www.youtube.com/watch?v=FT3ODSg1GFE> at 1:20.
- “A guide Tour of iPhone 14 & iPhone 14 Pro | Apple,” <https://www.youtube.com/watch?v=cgpSBjWutGY> at 1:50.

Apple specifically advertises “2x optical zoom out” for both still and video use as a feature of each of the Accused Ultra Wide / Wide Products, further encouraging customers to use the infringing features of these products. *See, e.g.,* <https://www.apple.com/iphone-11/specs/>, <https://www.apple.com/iphone-12/specs/>, <https://www.apple.com/iphone-13/specs/>, <https://www.apple.com/iphone-13-pro/specs/>, <https://www.apple.com/iphone-14/specs/>, <https://www.apple.com/iphone-14-pro/specs/>, <https://www.apple.com/ipad-pro/specs/>.

Further, whenever any user of the iPhone 7 Plus has operated or operates the dual-aperture camera of the iPhone 7 Plus to zoom in or zoom out, to zoom factors in which the wide-angle, or telephoto lens, or both providing the image using the software and user interface provided by Apple for the iPhone 7 Plus, for example by zooming across a 2X zoom, the method of claims 12 and 13 the ’291 patent has been or is performed by use of the iPhone 7 Plus.

Further, whenever any user of any Accused Ultra Wide / Wide Products has operated or operates the multi-aperture camera of such a product to zoom in or zoom out, to zoom factors in which the “ultra wide” lens, or “wide” lens, or both providing the image using the software and user interface provided by Apple for the Accused Ultra Wide / Wide Products, for example by zooming across a 2X zoom, the method of claims 12 and 13 the ’291 patent has been or is performed by use of the Accused Ultra Wide / Wide Products.

Induced Infringement of the Asserted Claim of the ’712 patent

Apple manufactures, uses, imports, offers for sale, and/or sells the Accused Products with knowledge of or willful blindness to the fact that its actions will induce Apple’s customers and end users to infringe the ’712 patent by using the telephoto lens on the Accused Products.

Apple actively and knowingly induces its customers and end users to infringe the ’712 patent by publishing information promoting the zoom features of the Accused Products, and by providing its customers and end users with instructions for using those features. For example, Apple highlighted the benefits of the telephoto lens when it introduced the iPhone 7 Plus. *See, e.g.,*

- “Apple – September Event 2016,” https://www.youtube.com/watch?v=NS0txu_Kzl8 at 1:08:22, and
- “Apple – Introducing iPhone 7,” <https://www.youtube.com/watch?v=Q6dsRpVyyWs> at 1:05.

Apple likewise actively and knowingly induces its customers and end users to infringe the ’712 patent by publishing information promoting the zoom features of the iPhone X, XS, XS Max, 11 Pro, 11 Pro Max, and 12 Pro, and by providing its customers and end users with instructions for using those features. For example, Apple touts its telephoto lens in the product description for the iPhone X. *See* <https://www.apple.com/iphone-x/>. As another example, Apple provides how-to video tutorials on photography, which include one on “How to compose with telephoto camera” using the iPhone 7+, iPhone 8+, and the iPhone X. *See* <https://www.apple.com/iphone/photography-how-to/>. Apple has continued to tout its telephoto lenses and encourage their use in subsequent products, including for example in the product announcement videos cited in section I.C above.

E. Literal Infringement and Doctrine of Equivalents

Corephotonics contends that each element of the Asserted Claims is literally present in or practiced by the Accused Products, as set forth in the charts attached hereto as Exhibits A, D, F, G, K, and L.

In the alternative, Corephotonics also contends that the iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max, iPhone 12, iPhone 12 mini, iPhone 12 Pro, iPhone 12 Pro Max, iPhone 13, iPhone 13 mini, iPhone 13 Pro, iPhone 13 Pro Max, iPhone 14, iPhone 14 Plus, iPhone 14 Pro, iPhone 14 ProMax, iPad Pro 11-inch (2nd generation), iPad Pro 11-inch (3rd generation), iPad Pro 12.9-inch (4th generation), and iPad Pro 12.9-inch (5th generation) infringe the '291 patent under the doctrine of equivalents, as set forth in Exhibit L. For example, to the extent that Apple contends that the cameras that it describes in marketing materials as the “ultra wide” and the “wide” or “main” cameras do not satisfy the claimed “Wide imaging section that includes a fixed focal length Wide lens with a Wide field of view (FOV)” and “Tele imaging section that includes a fixed focal length Tele lens with a Tele FOV that is narrower than the Wide FOV” limitations, these limitations are satisfied under the doctrine of equivalents. The “wide” or “main” camera has a narrower field of view than the “ultra wide” camera, and the products that include these two cameras are built and operate in a way that is insubstantially different from the claimed invention, even though Apple’s marketing materials may describe the cameras using different terms than the asserted claims. Moreover, the presence of an additional camera that Apple describes as “telephoto” in some of the accused products does not alter the fact that the “ultra wide” and “wide” cameras are insubstantially different from the claimed invention.

Likewise, to the extent that Apple contends that the Accused Ultra Wide / Wide Products do not literally infringe limitations of element 1(c) or element 12(b) of the '291 patent, because there are some circumstances where the product exhibits different or additional behavior to the behavior recited in the claim, these products still infringe under at least the doctrine of equivalents, as they perform substantially the claimed behavior under typical and intended usage scenarios.

Apple has not yet made any contention that it does not infringe the Asserted Claims, nor is the process of proposing constructions for any of the terms in the Asserted Claims complete. To

the extent Apple contends non-infringement or proposes claim constructions as the basis for its contention of non-infringement, Corephotonics reserves the right to supplement or amend its infringement contentions, including by contending that the elements are present under the doctrine of equivalents, as mapped in Exhibits A, D, F, G, K, and L.

F. Priority Date of Asserted Claims

Each Asserted Claim of the '291 patent is entitled to a priority date at least as early as the effective filing date of the '568 patent pursuant to 35 U.S.C. § 100(i): June 13, 2013.

Each Asserted Claim of the '712 patent is entitled to a priority date at least as early as the effective filing date of the '712 patent pursuant to 35 U.S.C. § 100(i): July 4, 2013.

G. Identification of Instrumentalities that Practice the Claimed Invention

Corephotonics makes no identification of instrumentalities pursuant to Patent L.R. 3-1(g) at this time. Discovery is ongoing, Corephotonics' investigation is continuing, and Corephotonics reserves the right to supplement or amend this disclosure to the full extent consistent with the Federal Rules of Civil Procedure, Local Rules, and Court Orders.

H. Timing of First Infringement and Damages

Based on the information reasonably available to it at this time, Corephotonics identifies the point of first infringement of all asserted claims of the '291 patent and the start of claimed damages as September 7, 2016, the date the Apple iPhone 7 Plus was publicly announced, placed on sale, and demonstrated to the public. The infringement of the asserted claims of the '291 patent is ongoing, and the claimed damages period is ongoing.

Based on the information reasonably available to it at this time, Corephotonics identifies the point of first infringement of the '712 patent by Apple as the date of its issue, February 14, 2017. The Apple iPhone 7 Plus was on sale and infringing claims 19 as of that date. On information and belief, Apple further had actual notice of U.S. Patent Publication 2016/0291293, containing the claims that ultimately issued in the '712 patent, between its publication on October 6, 2016 and the date the '712 patent issued. Thus, Corephotonics is entitled to damages for infringement of its provisional rights pursuant to 35 U.S.C. § 154(d) for the period of time between when Apple had actual notice and February 14, 2017. Further, on information and belief, Apple was infringing

claims 1, 12, and 13 of the '712 patent as early as February 14, 2017, for example, in the course of its use of prototype iPhone X products and camera modules in the internal testing and development work that Apple performed prior to that date that the iPhone X was put on public sale. The infringement of the asserted claims of the '712 patent is ongoing, and the claimed damages period is ongoing. Further, on information and belief, the iPhone 14, iPhone 14 Pro, and iPhone 14 ProMax were released for sale on September 16, 2022, and the iPhone 14 Plus was released for sale on October 7, 2022. On information and belief, Apple's use of the iPhone 14 series for internal testing and development precedes these sale dates.

Discovery is ongoing and Corephotonics' investigation continues. Accordingly, Corephotonics reserves the right to amend and supplement its identification of the timing of Apple's infringement and the start of claimed damages.

I. Willful Infringement

For years prior to introducing its products in the marketplace, Apple expressed repeated and substantial interest in Corephotonics' technology and intellectual property relating to the hardware and software to enable dual-aperture mobile phone cameras capable of optical zoom. Apple knew, or was at least willfully and deliberately blind, to Corephotonics' patents relating to this technology, including the Asserted Patents. Instead of working with Corephotonics to access its technology and intellectual property, Apple has marketed products infringing the Asserted Patents in wanton disregard of Corephotonics' patent rights. Apple introduced the Apple iPhone 7 Plus after the '291 patent issued and after U.S. Patent No. 9,402,032, which shares a specification with the '712 patent, issued. Apple subsequently introduced numerous additional infringing models and has continued to unlawfully infringe even after Corephotonics filed its original Complaint on November 7, 2017.

The basis for Corephotonics' allegations of willful infringement of each Asserted Patent is described in summary, including examples of Corephotonics' interactions with and presentations to Apple, as well as Apple's investigation and analysis of Corephotonics' patents in connection with Apple's prosecution of its own patent applications, in Corephotonics' First Amended Complaint in Case No. 17-cv-06457, filed on April 11, 2018, which is incorporated herein by

reference, including the factual allegations described in Paragraphs 22 through 44, and in Corephotonics' Complaint in Case No. 18-cv-02555, filed on April 30, 2018, which is incorporated herein by reference, including the factual allegations and description of the grounds for allegations of willful infringement described in Paragraphs 12-41 and 45-47.

Further evidence of Apple's willful infringement is found in that fact that it has continued to infringe the '291 and '712 patents, even after IPR2018-01348 challenging the '291 patent was denied institution on February 4, 2019 and rehearing was denied on August 5, 2019, after IPR2018-01356 challenging the '712 patent was denied institution on February 5, 2019, after the final written decision affirming the patentability of the asserted '712 patent claims was issued on December 4, 2019 and affirmed by the Federal Circuit on June 23, 2021, and after Apple's request for reexamination of the '712 patent was denied by the Patent Office on February 14, 2022.

Further, Apple's willful infringement is further evidenced by its continued release of new iPhone models that infringe the asserted patents a same or substantially similar infringement theory alleged for previous generation iPhones. Apple received notice of the patents and infringement theories via this lawsuit and via infringement contentions, but Apple continued to release new infringing iPhone models thereafter.

Corephotonics' investigation is ongoing, and many of the facts pertaining to Apple's willful infringement will be found in documents and information in the possession, custody, and control of Apple and third parties.

II. DOCUMENT PRODUCTION ACCOMPANYING DISCLOSURE

Corephotonics has previously produced documents required by Patent L.R. 3-2. Corephotonics incorporates by reference its Disclosure of Asserted Claims and Infringement Contentions in Case No. 17-cv-06457 served on April 11, 2018 and its Disclosure of Asserted Claims and Infringement Contentions in Case No. 18-cv-02555 served on May 30, 2018, its Amended Disclosure of Asserted Claims and Infringement Contentions served on July 26, 2022, its Patent L.R. 3-8 damages contentions in Case No. 17-cv-06457 served on July 18, 2018, and its Patent L.R. 3-8 damages contentions in Case No. 18-cv-02555 served on October 17, 2018 for identification of documents that correspond to each category listed in Patent L.R. 3-2.

RUSS, AUGUST & KABAT

DATED: July 26, 2022

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that counsel of record is being served on August 2, 2023, with a copy of this document via Electronic Mail on this date.

/s/ Neil Rubin

RUSS, AUGUST & KABAT